



FIG. 1

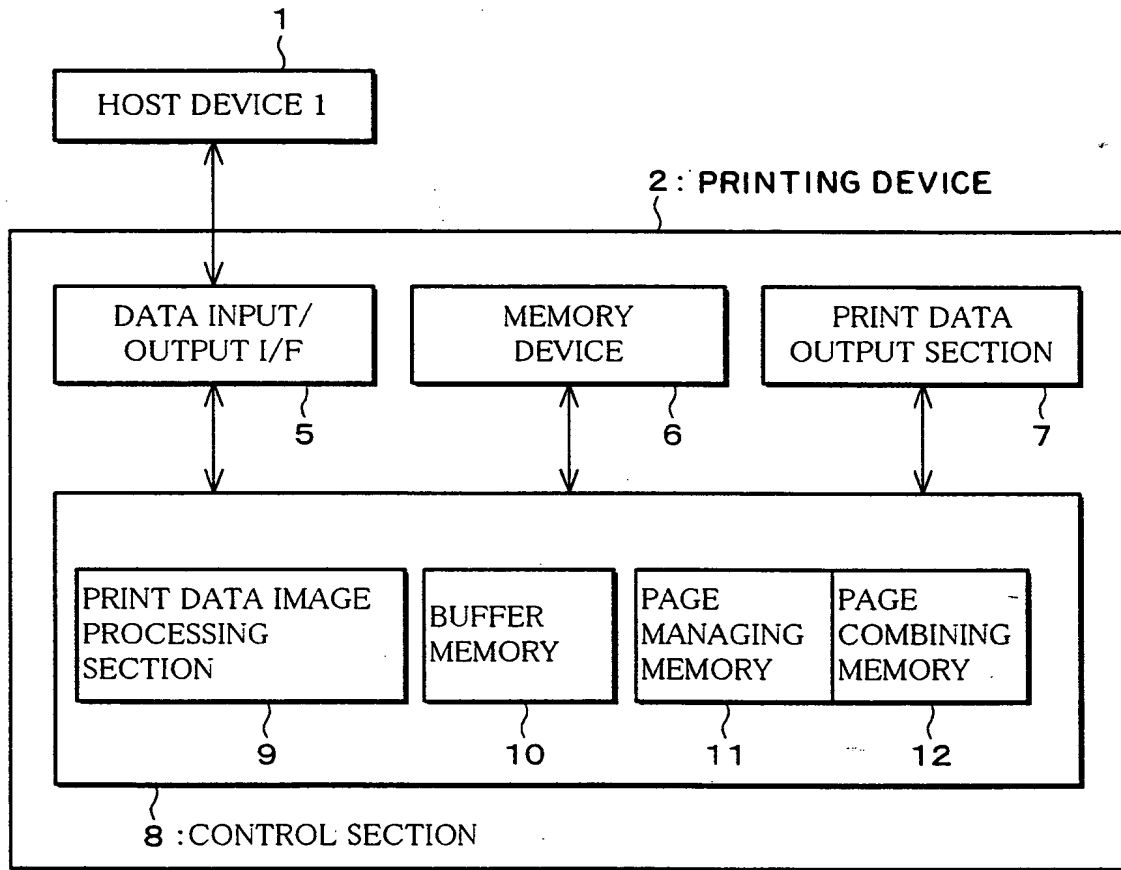




FIG. 2

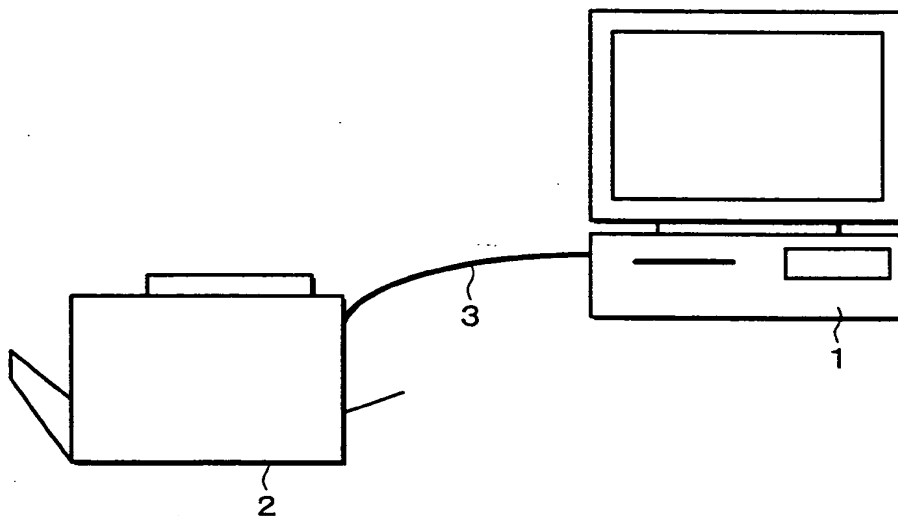
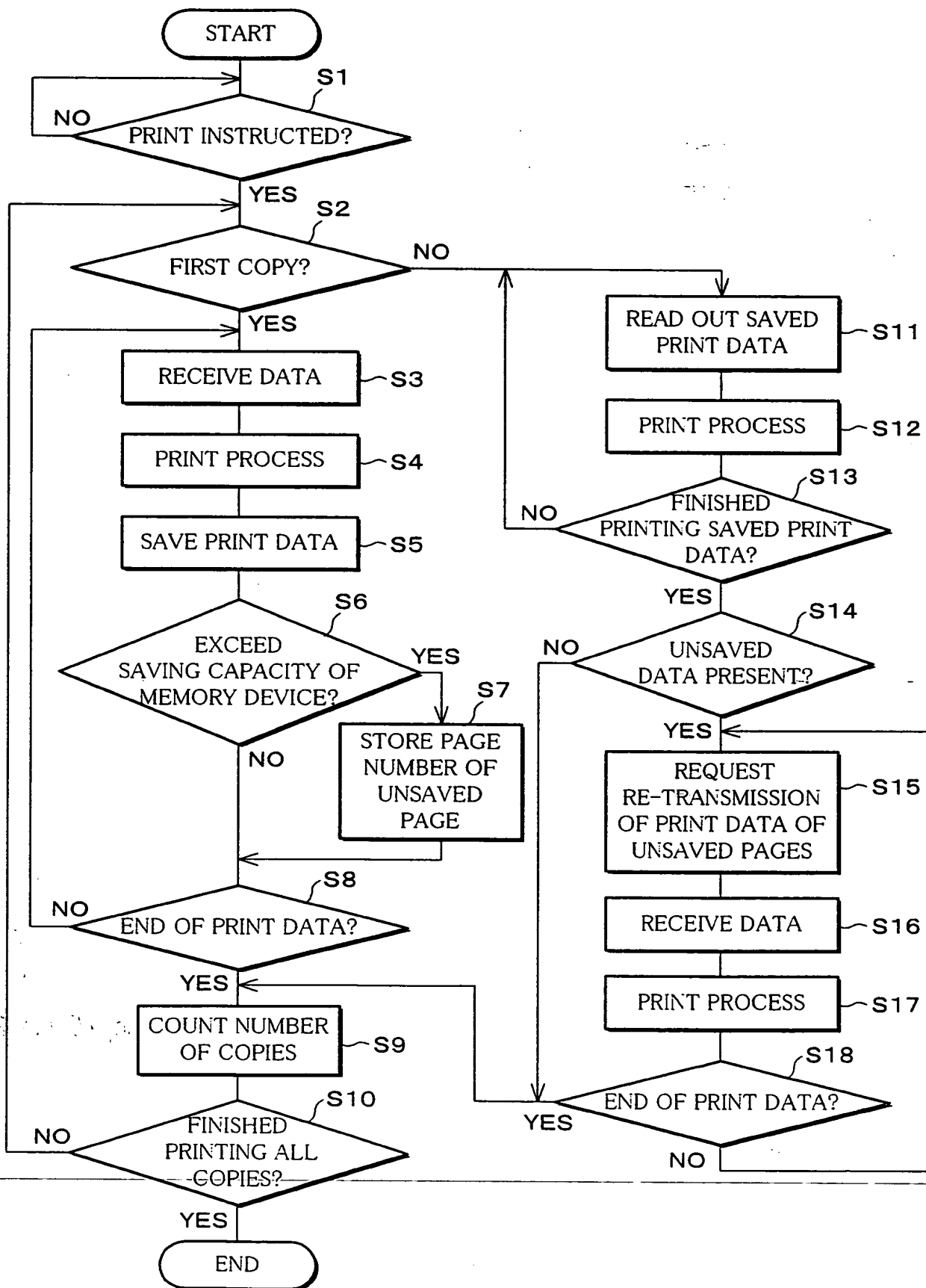




FIG. 3





## FIG. 4

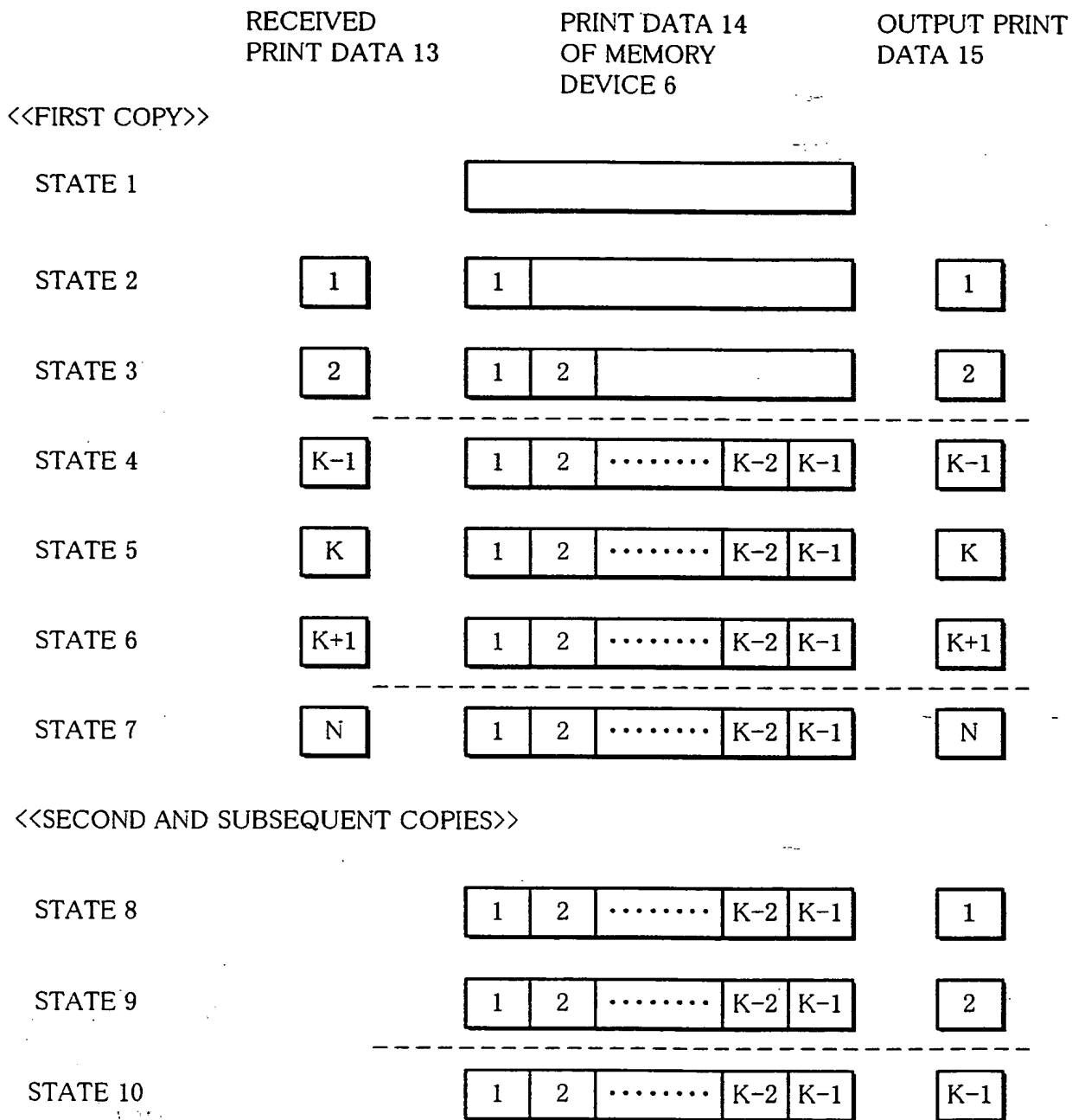




FIG. 5

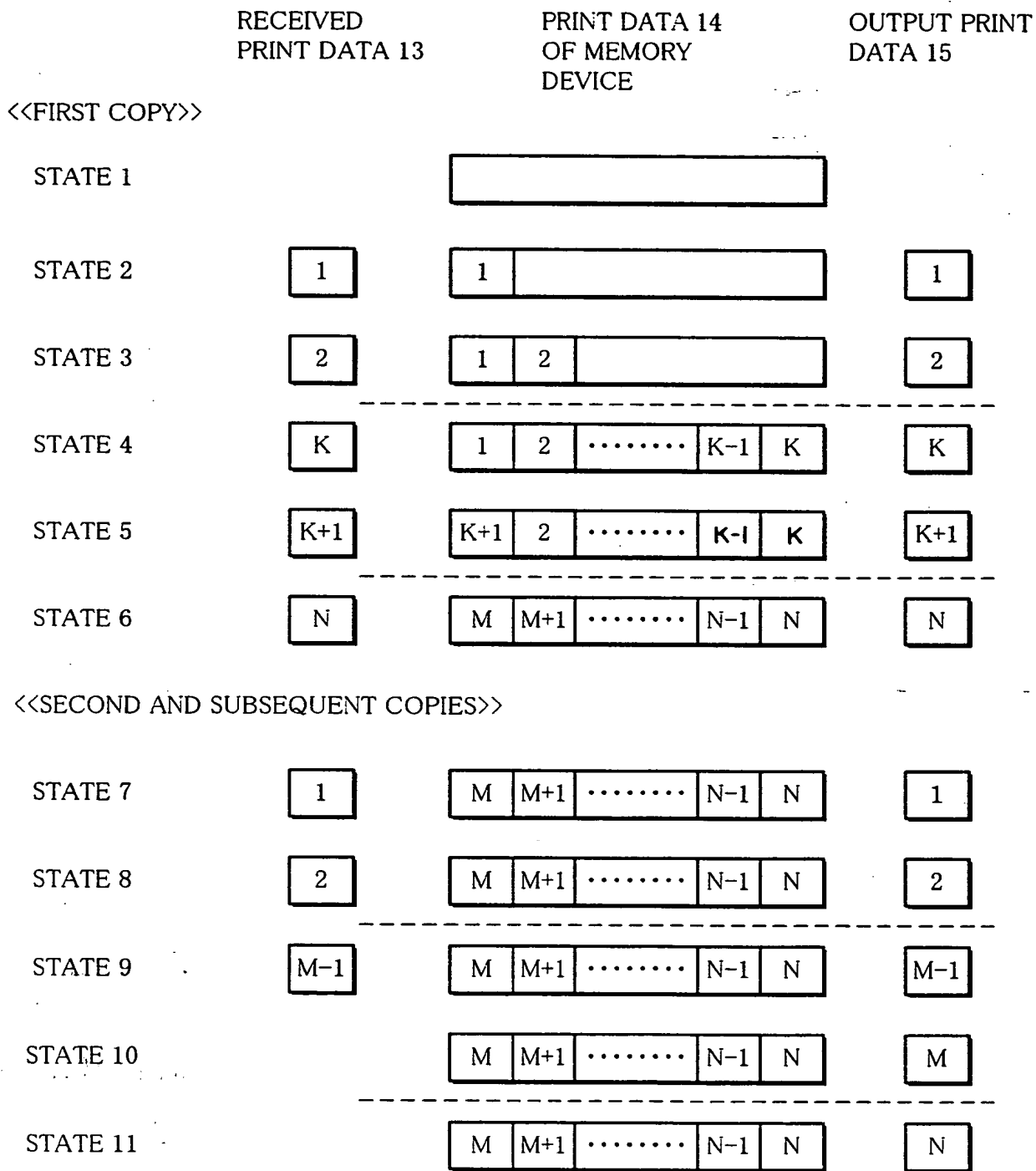
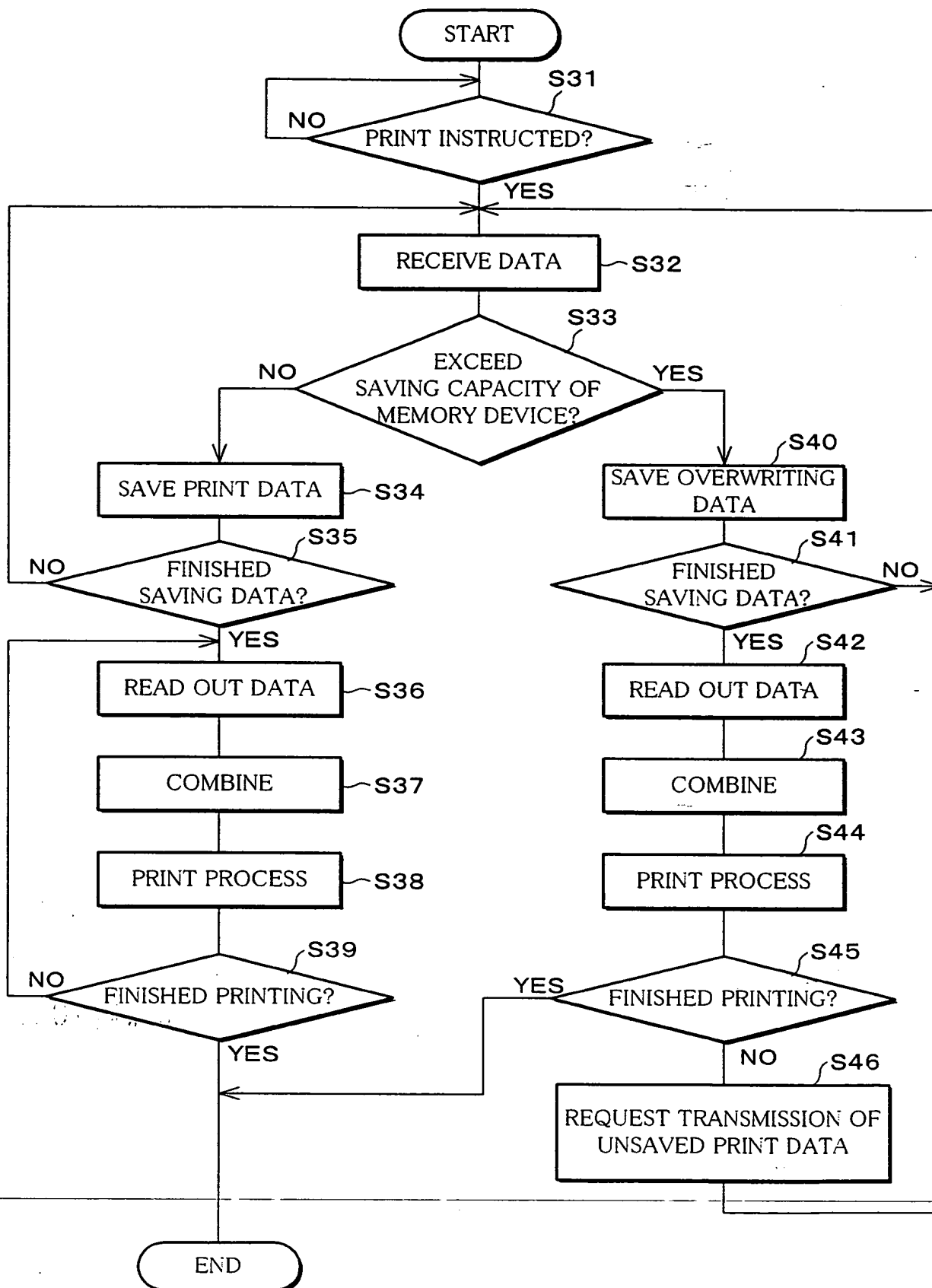




FIG. 6





# FIG. 7

RECEIVED  
PRINT DATA 13

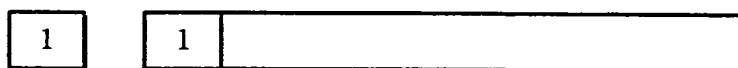
PRINT DATA 14  
OF MEMORY  
DEVICE 6

OUTPUT PRINT  
DATA 15

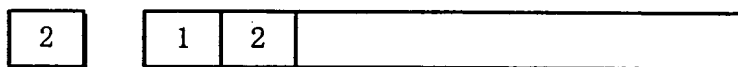
STATE 1



STATE 2



STATE 3



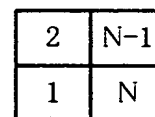
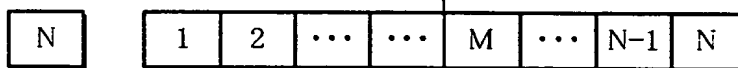
STATE 4



STATE 5



STATE 6





# FIG. 8

RECEIVED  
PRINT DATA 13

PRINT DATA 14  
OF MEMORY  
DEVICE

OUTPUT PRINT  
DATA 15

STATE 1

--

STATE 2

1
---

1	
---	--

STATE 3

2
---

1	2	
---	---	--

STATE 4

2K
----

1	2	...	K	K+1	.....	2K
---	---	-----	---	-----	-------	----

STATE 5

2K+1
------

1	2	...	K	K+2	.....	2K	2K+1
---	---	-----	---	-----	-------	----	------

STATE 6

N
---

1	2	...	K	N-K+1	.....	N-1	N
---	---	-----	---	-------	-------	-----	---

STATE 7

1	2	...	K	N-K+1	.....	N-1	N
---	---	-----	---	-------	-------	-----	---

1	N

STATE 8

K+1	K+2
-----	-----

2	...	K	K+1	K+2	N-K+1	.....	N-1
---	-----	---	-----	-----	-------	-------	-----

2	N-1
3	N-2

STATE 9

K-1	K	K+1	.....	N-K+1	N-K+2
-----	---	-----	-------	-------	-------

K-1	N-K+2
K	N-K+1





FIG. 9 (a)

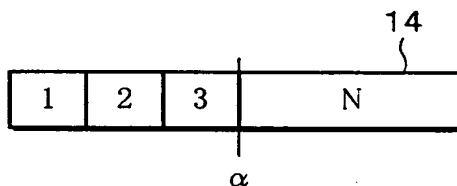


FIG. 9 (a)

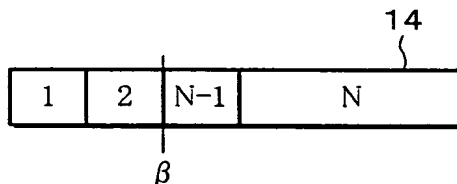
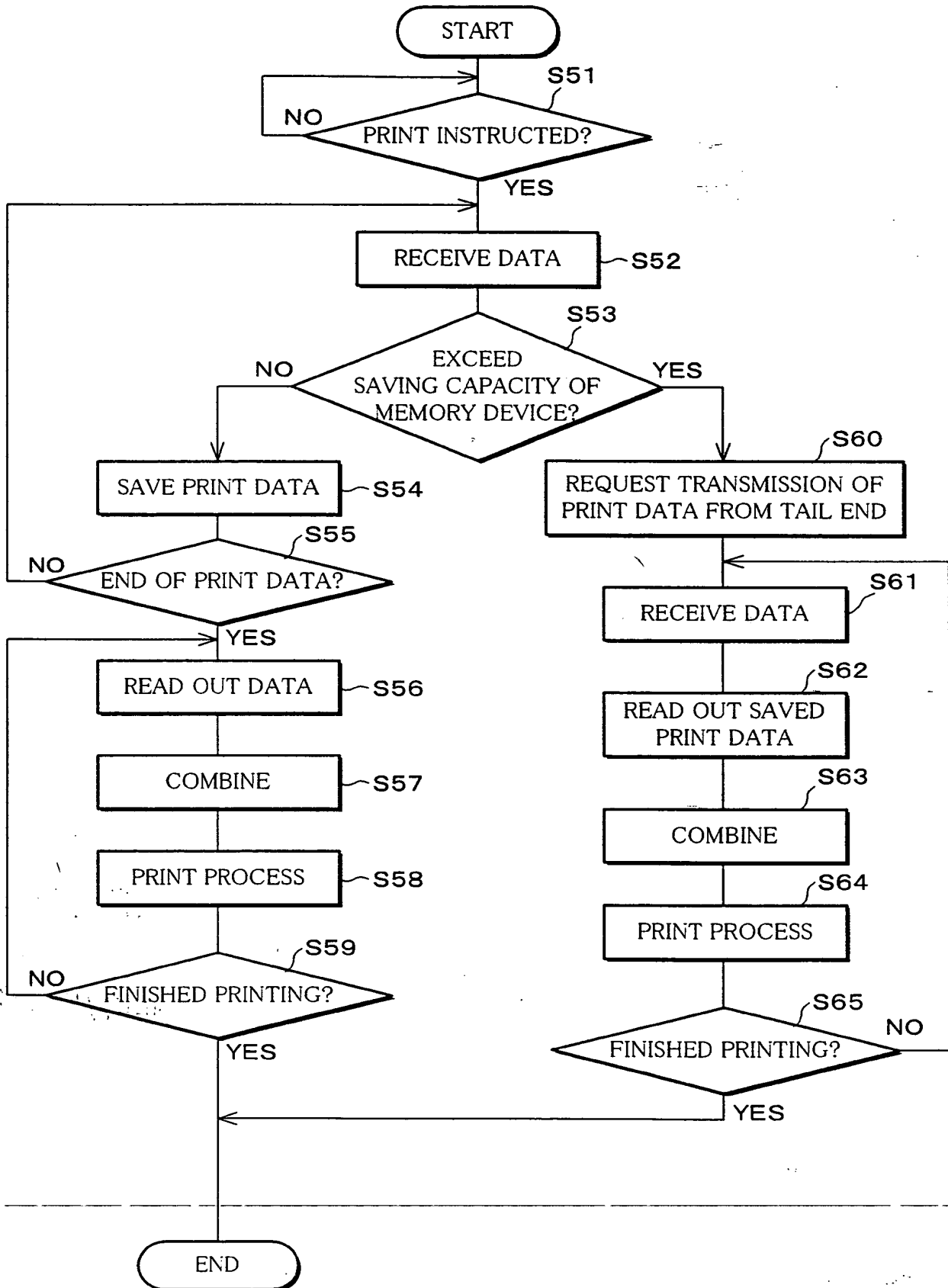


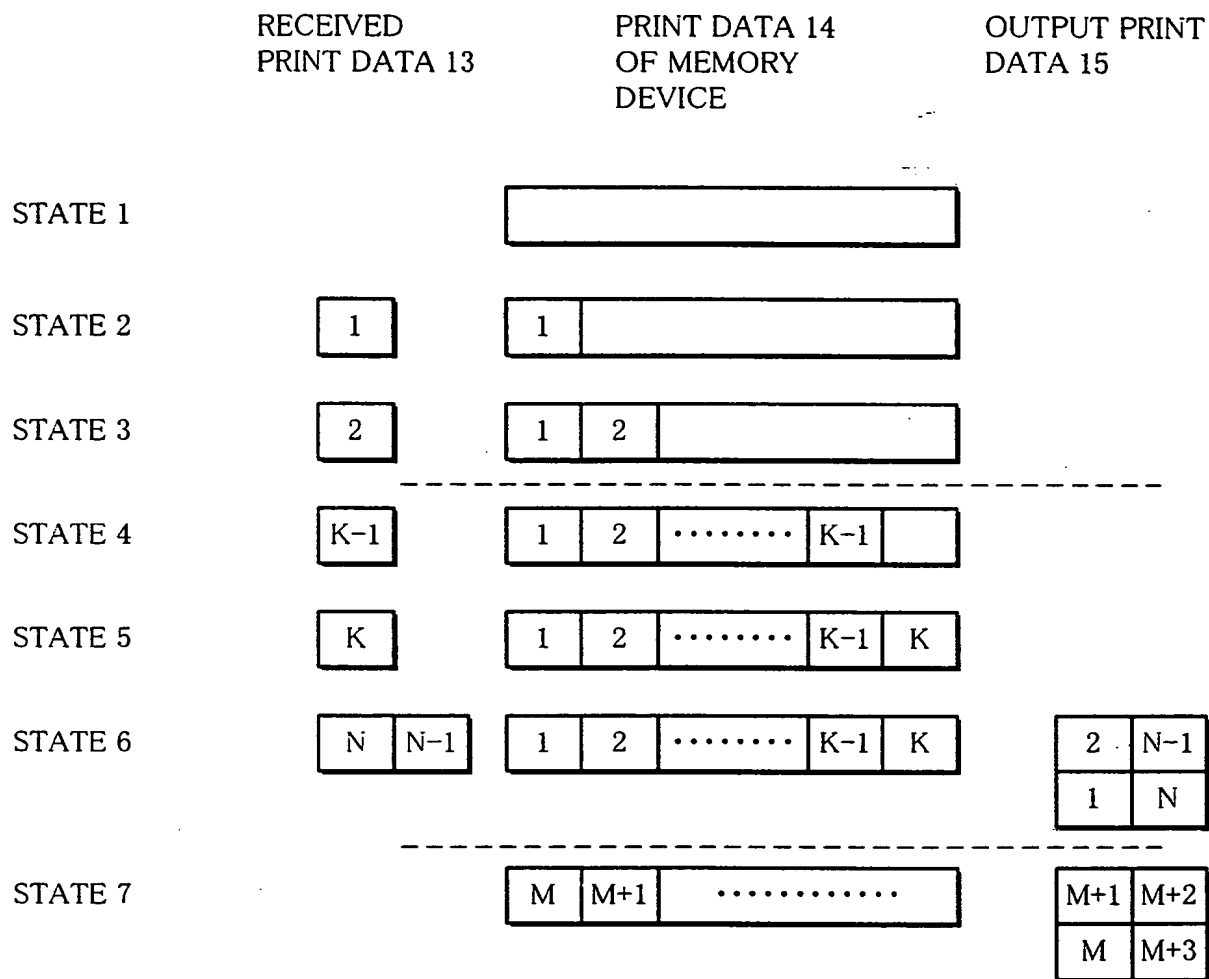


FIG. 10





# FIG. 11





## FIG. 12

RECEIVED  
PRINT DATA 13

PRINT DATA 14  
OF MEMORY  
DEVICE

OUTPUT PRINT  
DATA 15

STATE 1

1	2	.....	N-1	N
---	---	-------	-----	---

2	N-1
1	N

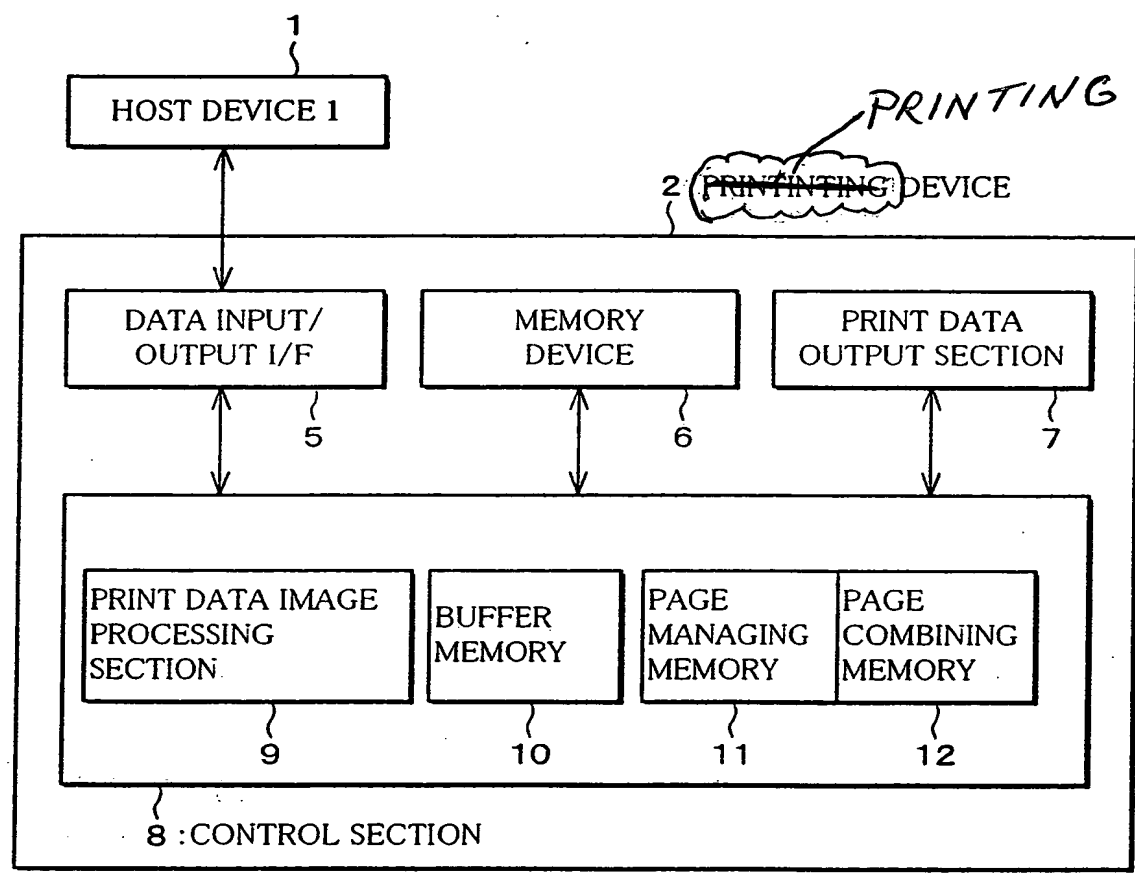
STATE 2

K	K-1
---	-----

3,N-2	4,N-3	.....	K-1	K
-------	-------	-------	-----	---

O I P E  
MAY 21 2004  
PATENT & TRADEMARK OFFICE

F I G. 1





## FIG. 5

